

S3 Fig. Schematic metabolic pathway diagram of central carbon metabolism in *P. putida* DOT-T1E showing the level of metabolites for both mutants compared to the wild type. Metabolites were detected and identified by GC-MS. Metabolites indicated in black were observed, while metabolites indicated in grey were not detected. The median m/z intensity (red line) in the box-whisker plots was used to compare the level of metabolites. Blue and brown represent the mutant DOT-T1E-PS28 and DOT-T1E-18 respectively. Up-arrow, downarrow and steady arrow indicate an increase, a decrease and no change in the level of metabolite respectively. The number of arrows represents the level of metabolites. Slight change (single arrow) and medium change (double arrows).